

REMARKS UNDER 37 C.F.R. 1.111

The present application describes an optimized method and apparatus for a single wound healing treatment using wound specific amplitude and frequency distribution for the signal applied. Electromagnetic (EM) radiation, magnetic field and/or DC or pulsed current are applied in a desired sequence of a particular signal or as a desired combination to best stimulate the tissue regeneration and growth.

None of the cited references provide for controlled amplitude and frequency distribution or for combined signal delivery and treatment. They are always one or another approach that does not provide basis for optimization of the signal delivery and optimization of the treatment, combination of signal delivery and signal distribution over the wound area. For instance, bed sores vary in size, shape and depth in healthy tissue, depending on the bed sore "age", the age of the patient, and the place on the body that the wound exists. Different wounds require different approaches, field strength distribution over the wound area and/or frequency modulation. Some might require high frequency EM radiation (~27 MHz is a very good frequency range), some will require combination between EM and a current stimulation, some might require simultaneous EM, current flow and magnetic treatment within a desired type, signal strength and frequency.

No patent referenced here or during our database search describes distribution over the wound area.

No patent referenced here or during our database search covers multiple field treatment of a single wound, nor provides for flexible amplitude, frequency and current density distribution during a single wound treatment.

Alon describes a Neuro muscular stimulator by delivering electrical energy to each muscle.

Ostrow describes a magneto therapy apparatus that is not suitable for high EM field applications and does not provide for combined delivery of a desired field and current distribution over a single wound.

Russek describes an electrode placement device for electric current and medication delivery.

McLeod describes a deformable magnetic filed delivery apparatus.

Browner describes a full body therapy through muscle stimulation.

Not one of the cited patents provides for apparatus and method for delivery of controlled and optimized distribution of EM, magnetic field current density and their combination over a single wound area for optimized wound healing.

✓ The applicant offers to amend each of the independent claims to insert "healing" in front of "cells" through the claims to agree with the preamble.

"A preamble to a claim has the import that the claim as a

whole suggests for it." Bell Communications Research, Inc. v. Vitalink Communications Corp., 34 USPQ2d 1816, 1820.

The preamble in the present case defines "healing cells" which is the "essence of this invention" and gives "life and meaning" to the rest of the claim. Such a preamble that is necessary to "give life, meaning and vitality to the claim" should be limiting as a feature of the claim. See Kropa v. Robie, 88 USPQ 478, 481 (CCPA 1951).

In the present invention the preamble recites "healing cells" which is the essence of the invention and therefore should not be dismissed as a mere "[i]ntended use" as has been done by the examiner.

While the applicant does not agree with the examiner's disregard of the claim in its entirety, including what the examiner identifies as the preamble and which is an integral part of the claim, the proffered amendment should resolve that issue without further consideration.

Patent and Trademark Office records indicate that the number of patents in the classes noted by the examiner is not excessive and would not suggest a hardship. For example, the numbers of patents in those subclasses total 438. Many are duplicates. Both of those classes should be searched in any case. In Subclass 2 under which 50 is indented only 283 patents are indicated, and in the general subclass 1 only 95 patents are indicated. In Subclass 50 only 77 patents are listed. The sole exception to small numbers of patents within the indicated

subclasses is found in Subclass 2 where 283 patents have appeared. It is believed that the experienced examiner in this application is familiar with all of these subclasses. Moreover, from the title of the listed subclasses it appears that the most important subclass is 50, in which only 77 patents have issued. There should be no hardship on the examiner to complete examination for all groups.

Reconsideration and allowance of the application are requested. Reconsideration and withdrawal of the restriction requirement are requested.

None of the claimed features are found in the prior art Browner, Russek, Ostrow, Alon or McLean references.

Browner would not have anticipated claim 1-7.

Claim 1 and its dependent claims point out a base on a body and cells on the base. Moreover, Browner cited under §102 is not a healing apparatus as claimed herein. Browner does not show controls connected to the cells separately controlling application of power to each of the cells individually, as specifically pointed out in claim 1 (see Figures 7, 8 and 9).

Neither Russek nor Alon would have suggested their mutual combination.

Russek and Alon (cited under §103) would not have made claim 1, 42, 50 or any dependent claim obvious. Russek has electrodes touching the body on a belt for muscle tensioning. Alon has a group of cells contacting a body for muscular control. Neither has a base on the body and a plurality of cells on a single base.

Neither reference is a healing apparatus. Neither has remote controls (claim 16). Neither has orthogonal arrangement of cells on a body-contacting base (claim 26). Neither has a base encircling a limb (claim 39).

Ostrow and Alon would not have made the invention obvious. Ostrow uses electromagnets in stimulator pads for neuro muscular stimulation. Neither Ostrow nor Alon suggests healing. Neither suggests a body-contacting base with plural cells.

The combination of Ostrow, Alon and Russek cited under §103 would not have made the invention as claimed obvious.

Ostrow uses electromagnets in pads for neuro muscular stimulation. Alon has separate pads for electro neuro muscular stimulation. Russek has electrodes touching the body and plugs in electrodes.

None of those references suggests a power source mounted on or connected to a base as claimed.

Ostrow, Along and Russek would not have made obvious the subject matter of claims 16-25.

Ostrow uses electromagnets in pads for neuro muscular stimulation. Alon has separate pads for electro neuro muscular stimulation. Russek has electrodes touching the body and plugs in electrodes.

None of the references has remote controls (claim 16). None has a field generator and interference-preventing shielding (claim 17). None has an off-on switch connected to the cables of claim 17. None of the prior art cables are signal-carrying

cables. None of the references shows or suggests the particular structure of the independent claim and the dependent claims.

Claims 40 and 41 distinguish the invention from Ostrow, Alon and McLeod.

Ostrow uses electromagnets in pads for neuro muscular stimulation.

Alon has separate pads for electro neuro muscular stimulation.

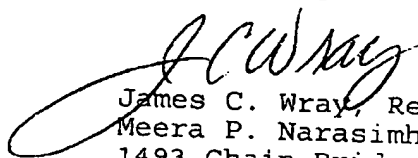
McLeod describes two coils which can be bent to conform to the anatomical contour of a human. McLeod does not have a base for placing on a body and plural cells arranged on the base, and does not have plural sensors incorporated into the base as described in claim 40. McLeod does not have sensors which sense parameters indicative of the wounds to be treated as described in claim 41.

McLeod simply has a magnetometer 146 which senses his own magnetic field.

Each of the claims points out features of the invention which are not anticipated by any reference and which would not have been obvious from any reference or any reasonable combination of reference.

Reconsideration and allowance of all claims are respectfully requested.

Respectfully,



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